City of Chula Vista Sewer System Management Plan

April 2009

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Department of Public Works

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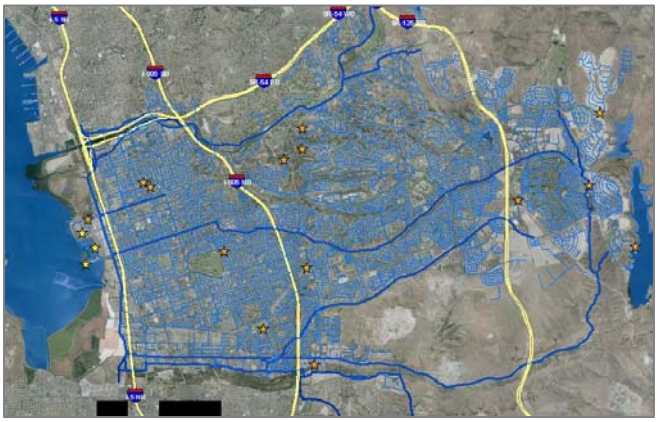
Abbreviation and Acronym List

APWA	American Public Works Association
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CCTV	Closed Circuit Television
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
City	City of Chula Vista
CMMS	Computerized Maintenance Management Systems
CMOM	Capacity Management Operations Maintenance
CPC	California Plumbing Code
CWEA	California Water Environment Association
d/D	depth to pipe diameter ratio
EDU	Equivalent Dwelling Unit
EORP	Emergency Overflow Response Plan
EPA	Environmental Protection Agency
FOG	Fats, Oils and Grease
FSE	Food Service Establishments
GBA	Maintenance Management Software
GIS	Geographic Information System
GreenBook	The *Standard Specifications for Public Works Construction*
hcf	Hundred Cubic Feet
I&I	Infiltration and Inflow
IIMS	Integrated Infrastructure Management System
Metro	City of San Diego Metropolitan Wastewater
MGD	Million Gallons per day
NASSCO	National Association of Sewer Service Companies
NPDES	National Pollutant Discharge Elimination System
OES	Office of Emergency Services
O&M	Operations and Maintenance
Ord.	Ordinance
PACP	Pipeline Assessment and Certification Program
PM	Preventative Maintenance
RWQCB	Regional Water Quality Control Board
SFD	Single Family Dwelling
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TSS	Total Suspended Solids
UPC	Uniform Plumbing Code
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WEF	Water Environment Federation

Executive Summary

The City of Chula Vista is located in southwestern San Diego County, approximately seven miles north of the international border with Mexico. Incorporated in 1911, the City has grown to be the second largest city in the county, currently encompassing over 50 square miles.

The City provides sanitary sewer service for all areas within the City limits and owns, operates, and maintains, nearly 500 miles of sewer main lines and 11 pump stations. City collection facilities convey wastewater flows generated within eight drainage basins to connections to regional sewage facilities located along San Diego Bay to the west and the Sweetwater River to the north. Wastewater flows are ultimately conveyed to transmission and treatment facilities operated by the City of San Diego's Metropolitan Wastewater Department (METRO).



Wastewater services provided by The City of Chula Vista are subject to guidelines created by the State Water Resource Control Board (SWRCB) and the San Diego Regional Water Quality Control Board (RWQCB), both of which have been aggressively addressing sanitary sewer overflows (SSO) for several years. In May of 1996, the RWQCB adopted Order No. R9-96-04 (Appendix A & B) in response to what was seen as a serious and growing number of problems related to sewage spills. In an effort to reduce SSO's, protect the water quality of local water resources, and improve public health, the order implemented regulations for collection systems prohibiting sanitary sewer overflows at any point upstream of a treatment facility.

When enacted, Order R9-96-04 had little effect on Chula Vista as the City was already subject to similar requirements imposed by METRO on all agencies transporting flow into the METRO system. As such, the City already had plans in place including, but not limited to, a Sanitary Sewer Overflow Response Plan (Appendix K) and a Sanitary Sewer Overflow Prevention Plan ("SSOPP," Appendix P).

On May 2, 2006 the State adopted order 2006-0003-DWQ (Appendix D). This order is now the primary regulatory mechanism for sanitary sewer systems statewide. The order contains additional requirements for reporting spills as well as more general sewer system management guidelines. The order also allows each regional board to issue more stringent Waste Discharge

Requirements (WDRs) for sanitary sewer systems within their respective jurisdiction. As a result, on February 14, 2007, the San Diego Regional Water Quality Control Board issued order R9-2007-005 (Appendix C) which included all of the elements of the State order in addition to some criteria taken from Order R9-96-04.

Each agency within the region that oversees a sanitary sewer system in excess of 1 mile is required to enroll in the state program. Enrollment in the programs includes registering with the State's new online SSO reporting website. In addition, agencies must establish a Sewer System Management Plan as described by Order 2006-003-DWQ. An excerpt from this document is included below:

To facilitate proper funding and management of sanitary sewer systems, each enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions. The mandatory elements of the SSMP are specified below:

I. Goal
II. Organization
III. Legal Authority
IV. Operation and Maintenance Program
V. Design and Performance Provision
VI. Overflow Emergency Response Plan
VII. FOG Control Program
VIII. System Evaluation and Capacity Assurance Program
IX. Monitoring, Measurement, and Program Modifications
X. SSMP Program Audits
XI. Communication Program

Chula Vista's SSMP is organized according to State guidelines and meets the requirements of both the RWQCB and the SWRCB. The SSMP includes eleven chapters as listed above, with each chapter addressing Chula Vista's procedures or processes that are either in place, or will be implemented, to meet both state and local requirements.

SSMP Goals

The WDR issued by the State defines the goal of the SSMP as:

Goal: *The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.*

The City of Chula Vista's ultimate goal is to continually improve the sanitary sewer system efficiently, economically, and in a manner that meets or exceeds the public's expectations. To achieve this goal the City's Public Works Engineering and Operations Divisions work in a collaborative manner to operate, maintain, and upgrade the City's Wastewater Collection System. Specifically the Public Works Operations Division strives to:

1. Continue the exemplary level of service that has been provided to the City of Chula Vista by maintaining, cleaning, and inspecting the sanitary sewer system.

2. Continue to maintain the most current and reliable Sanitary Sewer Overflow Response Procedures, so that in case of an overflow the respondents contain the spill with the least amount of harmful aftereffects.

3. Continue to monitor and evaluate the sanitary sewer system in order to maintain adequate capacity throughout the system and account for continued development and growth.

4. Identify those areas in need of significant rehabilitation, and work with Public Works Engineering and Finance staff to acquire the necessary funding to complete the rehabilitation.

The Public Works Engineering Division strives to:

1. Manage the use, expansion, and modification of, the City's wastewater collection system.

2. Ensure necessary funds are collected to maintain and expand the City's wastewater collection system as well as pay for the treatment of wastewater transported to the METRO system.

3. Maintain accurate development projections relating to wastewater generation within the City of Chula Vista through strong working relationships with the City's Planning and Development Services staff in order to maintain the level of service provided to Chula Vista residents.

4. Continue to work diligently with the Public Works Operations division to track maintenance activities and create improvement projects to solve maintenance problems or improve the efficiency of the wastewater collection system.

5. To create and maintain a Fats Oil and Grease (FOG) monitoring program aimed at monitoring restaurants and other grease generating businesses in an effort to reduce the volume of FOG entering the collection system.

Organization

The WDR for wastewater collection agencies regarding an agency's organizational structure are met by a variety of City employees. Each WDR requirement is listed below and is followed by a brief response describing how Chula Vista fulfills each:

(a) The name of the responsible or authorized representative as described in Section J of this Order.

The SSMP will be signed and certified by the Director of Public Works, Richard Hopkins, prior to City Council officially adopting the document.

(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation;

Jim Sandoval

The City's organizational structure is the responsibility of City Manager Jim Sandoval, who reports directly to the Mayor and City Council. Reporting directly to the City Manager is an Assistant City Manager as well as two Deputy City Managers, each with several departments for which they are responsible. Assistant City Manager Scott Tulloch is responsible for the Public Works Department as well as Human Resources, Information Services Technology, and Conservation and Environmental Services Departments.

The Public Works Department, lead by Director Richard Hopkins (619-409-5873), is responsible for all aspects of the City's wastewater collection system and includes two core divisions providing wastewater services: The Operations Division lead by Assistant Director Matt Little (619-397-6066), and Engineering Division lead by Assistant Director Iracsema Quilantan (619-409-5976), as seen in the organizational chart in Appendix "G."

Reporting directly to Matt Little, and responsible for the Public Works Operations Division Wastewater Section, is Wastewater Collection System Manager Dave McRoberts (619-397-6009). Under Dave's supervision, the Operations Wastewater Section is directly responsible for the maintenance and inspection of the existing sanitary sewer system. Several employees of the section, as listed below, are registered with the State's on-line SSO reporting service and are authorized to report SSO's on behalf of the City (see Appendix E for all registration documents relating to the States on-line service). They are:

Steve Padilla - Public Works Supervisor, (619) 397 - 6020
Mark Sanchez - Public Works Supervisor, (619) 397 - 6025
Rudy Cancio - Public Works Supervisor, (619) 397 - 6026
Tim Ripley - Public Works Supervisor, (619) 397 - 6043
Joseph Burgos - Public Works Supervisor, (619) 397 - 6031
Brian Walther - Pump Maintenance Supervisor, (619) 397 - 6042

Reporting directly to Iracsema Quilantan is Principal Engineer Frank Rivera (619-691-5045) who supervises the Public Works Engineering Division Wastewater, Traffic, and Advanced Planning sections. Supervising the day-to-day activities in the Engineering Wastewater section is Senior Civil Engineer, Jim Newton (619-691-5034). The Engineering Wastewater Section is in charge of drafting and maintaining the SSMP, implementing the FOG program, creation of wastewater related CIP projects, wastewater flow modeling, and managing all wastewater associated funds. Staff from the Engineering Wastewater section are also enrolled in the State's on-line SSO reporting service (see Appendix E for enrollment data).

(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

The City's response plan regarding SSO's is fully detailed in our Sewer Overflow Emergency Response Plan, and briefly summarized later within this SSMP under the Overflow Emergency Response section. In general, notification of an SSO may be received by City staff in a variety of ways. Once received, a Chula Vista Public Works Operations vactor truck crew is dispatched to the scene, and notifies the appropriate Public Works Wastewater Supervisor of the incident. Each supervisor has the authority to report the SSO in accordance with the Regional Water Quality Control Board guidelines. Once reported, the Wastewater Supervisor notifies the Public Works Operations Wastewater Collection System Manager of the incident for further direction.

Establish Legal Authority

In order to help ensure agencies have the legal authority to properly manage, operate, and maintain all parts of a sanitary sewer system, the WDR for wastewater collection agencies requires specific ordinances or agreements regarding a variety of wastewater issues. The majority of these requirements are satisfied in the City of Chula Vista through the Municipal Code as detailed in the context of this chapter. The Chula Vista Municipal Code may be viewed in its entirety at *www.chulavistaca.gov.*

Legal Authority: *Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:*

(a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);

Chula Vista Municipal Code Section 13.12.010 addresses this condition. While sub-paragraph "A" states that the list of prohibited discharges described within the section applies to all users of the wastewater system and can be amended, sub-paragraph "B" lists the specific substances that are prohibited from being discharged into the system. Excerpts from section 13.12.010 are included here for example purposes while the entire section and Municipal Code as a whole are available on-line.

13.12.010 Prohibited discharges

A. Prohibited discharges shall include, but not be limited to, those containing constituents enumerated in this section. Such prohibitions are applicable to all users of the wastewater system. Any constituent not listed herein may be added by regulation or other prohibition promulgated by the Director based on results of technical determinations, the actions of regulatory agencies, the projected impact of the constituent upon the wastewater system, and the capacity of wastewater treatment facilities to accommodate such constituent.

B. No person, whether or not a permittee, shall discharge or cause to be discharged directly or indirectly into a sewer lateral, or into the wastewater system or facilities, the following:

4. Any solids or viscous substances or other matter of such quality, size or quantity that they may cause obstruction to flow in the sewer or be detrimental to proper wastewater treatment plant operations. These objectionable substances include, but are not limited to, asphalt, dead animals, offal, ashes, sand, mud, straw, industrial process shavings, metal, glass, rags, feathers, tar, wood, whole blood, paunch manure, bones, hair and fleshings, entrails,

fatty acids, grease and oil, paper dishes, paper cups, and milk containers or other similar paper products, either whole or ground.

7. Any matter containing more than 500 mg/l of oil or grease.

(b) Require that sewers and connections be properly designed and constructed;

Requirements regarding the expansion of, or connection to, the City of Chula Vista's sanitary sewer system are described in the City of Chula Vista Subdivision Manual, Municipal Code, and Design Standards, all of which are available for viewing in their entirety on-line. Connections to the sewer system require design review and permit approval by the Wastewater Engineering Section, with construction inspection of said connections being provided by the Public Works Construction Inspection Section.

The City of Chula Vista requires that all aspects of the Sanitary Sewer System be reviewed by Engineering Staff as indicated in Municipal Code Section 13-08.010

13-08.010 Director - Duties

The Director [of Public Works or designee] shall issue permits, review plans, inspect, and make permanent record of:

A. All Wastewater facility construction, repairs, sewer connections, and disconnections within public rights-of-way
B. All industrial wastewater pre-treatment facility construction and repairs upon private property

Municipal Code Section 13-08.030 lists the standards and specifications that must be followed in the design and construction of sanitary sewer systems.

13-08.030 Conformity of plans for wastewater facilities to City Standards

Construction plans, specifications and details as necessary to fully describe a proposed wastewater facility or wastewater facility modifications shall be in full conformity of the following documents as adopted and amended from time to time by the Chula Vista city Council:

A. "Standard Specifications for Public Works Construction" Published by BNI Books;
B. "Design Standards - 1990 - Construction Standards," by Chula Vista Department of Public Works;
C. "City of Chula Vista Subdivision Manual";
D. "San Diego Area Regional Standard Drawings," by San Diego County Department of Public Works;
E. Copies of all such documents shall be available at the office of the Director. (Ord. 2466 § 7,1991);

(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;

In order to facilitate maintenance activities including the inspection and repair of lines owned or maintained by the City of Chula Vista, the City has developed standards that require the placement of sewer lines in locations that allow for easy access and maintenance operations. The City of Chula Vista Subdivision Manual Section 3-302.7.1 addresses the required locations for sewer mains and trunk sewers:

3-302.7 (1) Sewer Locations

A. Sewer trunks and mains will normally be located on the centerline of streets, for streets without medians unless otherwise approved by the City Engineer.
B. Sewer trunks and mains will normally be located in the center of the driving lane for streets with medians unless otherwise approved by the City Engineer.

Should the trunk sewer or main be required to be installed within an easement, the City of Chula Vista Subdivision Manual Section 3-302.7.2 identifies the requirements necessary for the easement and the installation of the pipeline within it, all designed to facilitate easy access and maintenance operations.

3-302.7 (2) Sewer Easements

A. Sewer Easements shall be equal to the pipe diameter plus 10 feet (3m) or a minimum of 15 ft (4.6m) in width, whichever is greater. Sewer Easement shall not split residential lots unless specifically approved by the City Engineer
B. Permanent obstructions within (or over) the easement which would hinder the maintenance of sewer facilities within the easement (i.e. fences, walls, steep slopes, overhanging eaves) are not allowed.
C. Easements shall be granted to provide access to all manholes.

The City of Chula Vista Municipal Code Section 13.06.030 (B) gives representatives of the City the right, if necessary, to access a facility to inspect discharges to the City of Chula Vista's sanitary sewer system.

13.06.030 Inspection and Sampling – General

B. Owners, users, and operators of all facilities directly or indirectly connected to the city's wastewater system, whether under construction or completed, shall give access to authorized personnel or representatives of the city at all reasonable times, including those occasioned by emergency conditions. Any permanent or temporary obstruction to easy access to the wastewater facility to be inspected shall promptly be removed by the facility owner, user or operator at the written or verbal request of the director and shall not be replaced.

> No person shall interfere with, delay, resist or refuse entrance to an authorized city inspector attempting to inspect any wastewater generation, conveyance, or treatment facility connected directly or indirectly to the city's wastewater system, and the provisions of Chapter 1.16 CVMC shall not apply.

(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages

In keeping with the new FOG program requirements within the State of California, Chula Vista has adopted ordnances that require the use of pre-treatment devices in order to reduce the discharge of fats, oil, and grease. Municipal Code section 13-10.150 specifies the use of a pre-treatment device as follows:

13.10.150 Pre-treatment - Grease – Food establishments

> A. All food establishments shall install a grease pre-treatment device in the waste line leading from the food preparation area, or from sinks, drains, appliances and other fixtures or equipment used in food preparation or cleanup, to where grease may be introduced into the sewerage system. Such grease pre-treatment devices shall be installed to remove grease from wastewater and shall be maintained in efficient operating condition by periodic removal of the accumulated grease. No such collected grease shall be introduced into any drainage piping or public sewer.

For further discussion regarding the City of Chula Vista's Fats, Oil, and Grease Program, please refer to Chapter VII of this SSMP. "Other debris" that may cause blockages is prohibited as previously discussed in this chapter.

e) Enforce any violation of its sewer ordinances.

In order to protect itself and the sanitary sewer system, the City of Chula Vista has provisions within its Municipal Code regarding enforcement of the regulations stated within the code. There are also provisions for any necessary legal action that the City of Chula Vista may impose on a person or persons for the non-compliance with the specific requirements stated within. The City of Chula Vista Municipal Code Section 13.06.010 states:

13.06.010 Administration.

> The Director of Public Works ("Director") shall administer, implement, and enforce the provisions of this title. Any powers granted to or duties imposed upon the Director may be delegated by the Director to persons in the employ of the city, or pursuant to contract. The Director shall make and enforce regulations necessary to the administration of this title and may recommend that the Council amend such regulations from time to time, as conditions require.

> These regulations shall be consistent with the general policy established herein by the City Council and shall be subject to prior review and approval by the City Council. (Ord. 2466 § 7, 1991).

Furthermore, section 13.06.100 gives the City the legal right to impose financial penalties, revoke permits, and, if necessary, impose civil penalties in the enforcement of regulations. Municipal Code Section 13.06.110 describes the administrative notice, hearing, and appeal procedures. Section 10.06.120 discusses potential criminal penalties that may be imposed for violations of City ordinances. An excerpt from section 13.06.100 regarding Civil Penalties is included here for example purposes while each entire section mentioned, and the Municipal Code as a whole, are available on-line.

13.06.100 Administrative Enforcement

> C. Civil Penalties - Any person who violates any provision of this title or permit condition or who discharges wastewater which adversely affects the wastewater system or facilities, or who violates any cease and desist order or prohibition issued by the director, or national pre-treatment standard shall be liable civilly for a penalty not to exceed $1,000 for each day in which such violation occurs, not to exceed $100,000 in total. Imposition of such civil penalties shall be pursuant to the procedures set forth in CVMC 13.06.110.

The City of Chula Vista has worked diligently to keep its ordinances and municipal Codes up to date to ensure that code changes and the resulting authority allows staff to fully comply with current state and federal regulations. Additionally, the City of Chula Vista is constantly monitoring its existing codes to ensure that there is legal authority to operate all areas included in the sanitary sewer system.

Operation and Maintenance Program

The City of Chula Vista has always attempted to take a proactive approach to operation and maintenance programs, trying to identify problem areas in the sanitary sewer system before they result in system failures or SSO's. An outline of each program implemented in the City of Chula Vista to monitor and maintain the City sewer system is included in the Sanitary Sewer Overflow Prevention Plan, included in this document under Appendix "P."

As of the writing of this report, the City's sanitary sewer system includes approximately 476 miles of sewer mains, over 8,000 sewer access ports, and 11 pump stations. From within the city's 50.6 square miles service territory, the City transmits average daily sewage flows of approximately 17 million gallons per day (mgd). Through an effective preventive maintenance program, the Public Works Department continues to maintain the City's wastewater systems efficiently and effectively. This reduces health hazards, extensive repairs, property damage/cleaning costs associated with sewer overflows or spills, and promotes a positive, cooperative atmosphere with other City departments and external agencies.

The WDR for wastewater collection agencies regarding operations and maintenance programs are primarily addressed by the City of Chula Vista within our Sanitary Sewer Overflow Prevention Plan. Each requirement, and a description of how Chula Vista meets each, is detailed within this chapter:

Operation and Maintenance Program. *The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:*

(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;

The City of Chula Vista has a well populated Geographic Information System (GIS) which includes all of the elements of the City's wastewater collection system (i.e. sewer lines, manholes, pump stations, sewer basin boundaries etc.) as well as City owned stormwater facilities.

The City of Chula Vista utilizes its own in-house GIS Department to maintain an accurate electronic map of the City's infrastructure. In doing so, the City is constantly updating its GIS information to include the latest CIP projects and field conditions discovered by field crews. All of the information contained within the City's GIS is available to City staff through an interactive GIS-based map of the City that can be viewed from any employee's workstation in order to provide access to the most accurate data available. Each wastewater crew is equipped with a laptop computer with access to either stand alone mapping software called Map

Objects that is updated once a month, or access to the interactive GIS based mapping program, CV Mapper, via a wireless connection.

(b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

The City's preventive and corrective maintenance programs detailed in the Sanitary Sewer Overflow Prevention Plan (Appendix P) consist of routine maintenance, repairs, and replacement of sewer mains, manholes, laterals, and pump stations. The program also provides for the inspection, cleaning, and related maintenance of all components of the collection system. A computer based Management System (GBA Master Series) is utilized to organize and schedule maintenance activities according to the nature of the activity or severity of the problem. For issues requiring more than just routine maintenance, the effected wastewater facilities are entered into the Capital Improvement Project (CIP) process for the planning, design, and construction of projects to solve each problem.

The City of Chula Vista has adopted aggressive preventative maintenance practices regarding the sanitary sewer system. In an effort to prevent SSO's Public Works crews clean the entire sewer system at least once every 18 months. Portions of the system experiencing low flow volumes or a high concentration of grease/roots are scheduled for cleaning more frequently. At certain locations in the City commonly impacted by relatively high grease levels, field crews regularly utilize active enzymes to reduce the buildup of the grease within the system.

The following are some of the preventive maintenance programs and efforts implemented within the City of Chula Vista Overflow Prevention Plan:

Maintenance Program

Preventive Measures:

A. Routine Sewer Main cleaning – Five fully staffed combination vehicles clean city sewer mains on a daily basis. Individual cleaners can maintenance between 1,000 and 6,000 lineal feet a day.
B. Critical Main Cleaning Program - Monthly main cleaning of approximately five miles of low flow and known grease problem areas.
C. Chemical/Enzyme Application Program – Application of chemicals/enzymes at 28 separate locations, two days a week at known grease problem areas.
D. Sewer Main and Manhole Inspection Program – Daily visual and/or televised inspection of sewer mains and manholes. The entire sanitary sewer system is televised and digitally recorded, at minimum, once every ten years.
E. Sewer Main Replacement (CIP) – Capitol Improvement Programs are budgeted for, and carried out on an annual basis to repair or replace sewer, reduce the risk or pipe failures, improve flow characteristics, and/or increase their capacity.

Root Control

Preventive Measures:

A. Routine Hydraulic Sewer Main cleaning – Five full staffed combination vehicles (Vactors) clean city sewer mains on a daily basis, all with the ability to remove roots from the system.
B. Mechanical Rodding – Rodding known areas significantly effected by roots with root cutters on a quarterly, or as needed basis.
C. Sewer Main and Manhole Inspection Program – Daily visual and/or televised inspection (CCTV) of sewer mains and manholes for infrastructure defects and root intrusion.
D. Sewer Infrastructure Repair/Replacement (CIP) – The repair, replacement, or rehabilitation of impacted sewers main lines to eliminate possible SSO's.

Control of Rocks, Debris and Vandalism

Preventive Measures:

A. Locking Sewer Manhole – Locking manhole covers are installed in off-road and secluded areas as well as manholes that have been vandalized.
B. Sewer Main and Manhole Inspection Program – Daily visual and/or televised inspection of sewer mains and manholes help in early discovery of rocks, debris and vandalism of the sewer collection system.
C. New sewer mains are inspected by City staff for construction debris as well as damage soon after the City accepts them for maintenance in order to establish a benchmark for the pipe's condition.

Pipeline Failure and Construction Damage

Preventive Measures:

A. Sewer Main and Manhole Inspection Program – Daily visual and/or televised inspection of sewer mains and manholes. Manholes and sewer main pipes are monitored for deterioration. New sewer mains are inspected for construction debris as well as damage soon after the City accepts them for maintenance.
B. Sewer Main and Manhole Maintenance – Repair, relocation, and/or protection of sewer mains and manholes from potential damage.
C. Sewer Main Replacement (CIP) – The repair, replacement, and rehabilitation or relocation of sewers and manholes prone to repetitive damage by any source.
D. Dual Force Mains – Installation of dual force mains at new sewer pump stations as needed for redundancy.
E. A flow recording contractor (ADS) monitors several flow recorders and reports high and low flow anomalies. Supervisory Control and Data Acquisition Systems (SCADA) are implemented with the ability to alert staff to flow anomolies.

Power outages and Pump station failures

Preventive Measures:

A. Backup Power – On site generators for back-up electrical power at most City pump stations.
B. Wet Wells – Sewer pump stations are provided with wet wells that have some retention time as well as having emergency pump-down lines that can be connected to portable pumps.
C. Sewer Pump Station Maintenance Program – All pump stations are visited by field staff two days a week. All pump stations are monitored via Supervisory Control and Data Acquisition Systems (SCADA) for proper operation. Each pump station has routine preventative and remedial maintenance on electrical and mechanical components. Outside contractors perform quarterly maintenance on generators at each location.
D. The City owns three auto start dry-prime portable pumps and hose reel trailers with 4” and 6” flexible pump discharge hoses. Approximately one-half mile of flexible discharge hose and one-quarter mile of ridged aluminum highline pipe can be used for “high lining” for emergency wastewater management.

Capital Improvement Program

Preventive Measures:

A. Infrastructure is monitored for capacity limitations and deterioration. Studies are performed to determine the impacts of growth and new development.
B. $1,400,000 a year is allocated to fund sewer rehabilitation and replacement projects including re-lining of pipes, spot repairs on sewer mains, complete manhole reconstruction, and pump station upgrades.

(c) Develop rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

The City of Chula Vista's sewer rehabilitation and replacement efforts begin with our video monitoring program. City crews perform visual and televised inspections of sewer facilities on a daily basis, inspecting an average of 63 miles of pipes each year, completing a full inspection of all City sewer facilities at least once every ten years. All inspections are currently performed by two crews utilizing trucks equipped with Flexidata pipeline assessment software, digitally recording the video footage and inspection data that is ultimately stored on a City network accessible by various departments. The inspection crews, having received training and certification in the use of the Pipeline Assessment and Certification Program (PACP) developed by NASSCO, grade the condition of each City maintained sewer line, entering their inspection findings and PACP grades into Flexidata. Should inspection crews find a facility in need of immediate repair or replacement, the proper Public Works staff is notified and construction is scheduled. For issues not requiring immediate attention, inspection findings entered into Flexidata are transmitted to engineers in the City's Wastewater Engineering section for evaluation.

Wastewater Engineering staff, having received video footage and inspection data, and also having been trained in the use of the PACP, reviews the data and uses the PACP grading system to help prioritize needed repairs. Capital improvement projects are then created, allocating the necessary funds for the design and construction of those projects with the highest priority, accounting for both short term and long term needs. The majority of funding for these projects is collected by the City through a Sewer Facilities Replacement Fee. The most recent rate study used to establish the replacement fee assumed $1.4 million in rehabilitation or replacement projects each year through fiscal year 2012. These funds are allocated to individual projects through the Capitol Improvement Program on an annual, or biennial basis. Examples of recent CIP's resulting from the City's video monitoring program are included in this report (Appendix T).

(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained;

As previously mentioned, all members of the Public Works and Engineering Departments that are involved in the video inspection and assessment process have received NASSCO PACP training and certification. The training course is a two-day certification program that teaches the inspection procedures and grading criteria associated with PACP methods. Having all City staff associated with the video monitoring program trained in the PACP system helps ensure consistency among the staff responsible for the grading and evaluation of pipes.

The City of Chula Vista encourages each employee to continue with their own education and professional training through a Professional Enrichment Fund from which employees are reimbursed for their individual training. The City of Chula Vista maintains up to date training records for every employee to help supervisors ensure that their staff is adequately and properly trained for their assigned duties, or in making recommendations to staff on which training classes to take. In-house training is also provided by supervisors or engineers with specific, specialized knowledge on topics such as the latest technology and use of BMPs and NPDES compliance. The following is a list of all mandatory training classes required for all Wastewater Maintenance Staff:

List of Mandatory Training for Wastewater Staff:

1. Confined Space-Entrant & Attendant.
2. Confined Space-Entry Supervisor
3. CPR & First Aid
4. Defensive Driving
5. DOT Drug & Alcohol Training for CDL Drivers
6. Trench and Shoring Competent Person
7. Fall Protection
8. Injury & Illness Protection Program (IIPP)
9. Lockout Tagout
10. Respirator Training (Mostly for First Responders)
11. Traffic Control & Flagger Safety
12. Bloodborne Pathogens

(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

Records of all City-owned heavy equipment and vehicles are kept utilizing serial numbers and/or license plate numbers (Appendix U). The City maintains a complete inventory of several different pipes sizes and associated fittings for sewer mains and laterals, heavy equipment such as backhoes, dump trucks, and specialized sewer cleaners, and TV inspection equipment for sewer mains and laterals. In addition, Public Works staff maintains an inventory of emergency

response equipment including such items as pumps, heavy-duty hoses, connectors, and pumps for emergency bypass connections.

The Pump Maintenance crew maintains a list of replacement parts and equipment on hand at each pump station. Each list specifically details the inventory of such replacement parts as mechanical seals, impellers, wear plates, o-rings, pump shafts, plug valves, air release valves, and entire rotating assemblies. The City maintains complete pumps for an entire pump replacement for some stations. In addition to replacement parts on hand, staff has access to many vendors that carry pump replacement parts on weekends and off hours in case of emergency.

Design and Performance Provisions

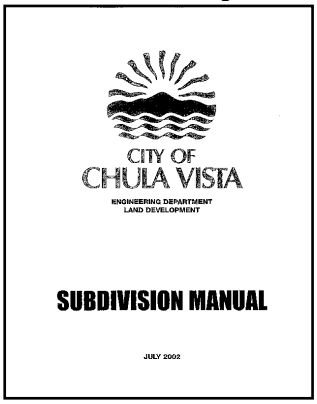
Understanding that good engineering designs can reduce the occurrence of SSO's in a wastewater collection system, the SWRCB requires agencies to have design and construction standards in place. The WDR guidelines for Design and Performance, along with an explanation of how Chula Vista meets each, are presented below:

a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and

The City of Chula Vista's Municipal Code identifies four documents that provide guidelines for the design of new sewer facilities within the City limits.

> **13.08.030**
> **Conformity of plans for wastewater facilities to City standards.** Construction plans, specifications and details as necessary to fully describe a proposed wastewater facility or wastewater facility modification shall be in full conformity with the following documents as adopted, and amended from time to time, by the Chula Vista city council:
>
> A. "Standard Specifications for Public Works Construction," published by BNI Books
> B. "Design Standards - 1990 – Construction Standards," by Chula Vista Department of Public Works;
> C. "City of Chula Vista Subdivision Manual";
> D. "San Diego Area Regional Standard Drawings," by San Diego County Department of Public Works.
>
> Copies of all such documents shall be available at the office of the director. (Ord. 2466 § 7,1991).

The City of Chula Vista has worked closely with the City of San Diego and other municipalities to create and document design standards that Chula Vista believes are the best practices to implement in the design and construction of wastewater, and other municipal facilities. These standards are documented in the City's Subdivision Manual to provide engineers and developers with a guide to land development processing and design standards in the City of Chula Vista.

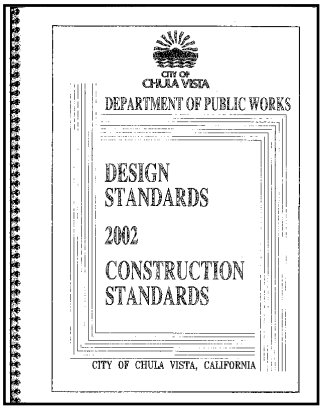


Divided into five chapters, the manual not only covers design and construction standards, but all land development processes beginning with the filing of a tentative map, continuing through final map recordation, and ultimately to grading and improvement plan requirements and guidelines. All projects are required to comply with the Subdivision Manual.

Any deviations from the standards described in the manual must be approved by the City Engineer.

Chapter 3 of the Subdivision Manual addresses design criteria for lot design and layout (Section 3-100), storm drain design (Section 3-200), sewer system design (Section 3-300), and street and road design and construction criteria (Section 3-400).

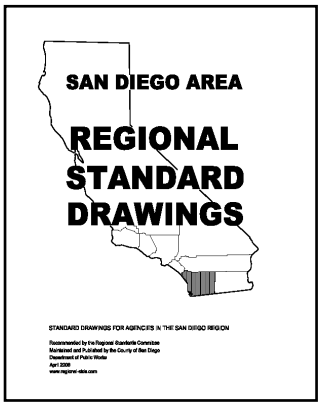
Section 3-300, Sewer Design, explains the criteria for the design and installation of sewer facilities within the City of Chula Vista. This subsection is further divided into three parts. Subsection 3-301 discusses design capacity requirements including generation rates, Manning's equation factors, and acceptable flow velocities. Subsection 3-302 explains system design criteria such as minimum pipe size requirements, constraints for sewer pipes within slopes, manhole design, and alignment information including easement requirements for access purposes. Lastly, subsection 3-303 discusses the design of force mains and pump stations including pump station alarm and wet well facilities. A copy of the Subdivision Manual, Section 3-300 is included in Appendix N. In addition, the complete Subdivision Manual is available to be viewed on-line or in person at the City of Chula Vista.



Engineering plan detail drawings are included in the City's Design Standards and Construction Standards. These details include design features specific to the City of Chula Vista and include standards for wastewater facilities such as sewer laterals and deep sewer connections, along with other non-sewer related facilities such as pedestrian ramps and streetlights. These design details, included in Appendix J, can also be viewed on-line or in person at the City of Chula Vista. Additional, regionally accepted design details for features not included in Chula Vista's design standards may be found in the regional standard drawings maintained by the City of San Diego.

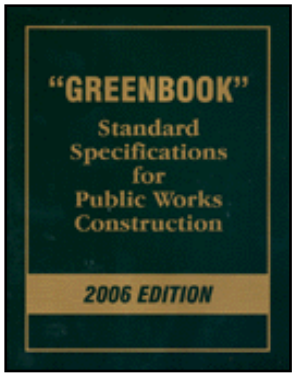
b) *Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.*

As previously mentioned, the Operations and Engineering divisions of the Public Works Department have worked to create the Department of Public Works Design Standards and Construction Standards. This document has standard drawings specific to Chula Vista and should be used in correlation with San Diego Area Regional Standard drawings. A copy of the Chula Vista manual is included in Appendix J, and is also available on-line or by request from the City of Chula Vista.



The Standard Specifications for Public Works Construction, more commonly known as "the greenbook," is widely used by cities and counties across California. This manual has been used as the "standard" for almost 30 years for the public works construction

market. The fourteenth edition includes the most recently tested and accepted construction, inspection, and testing methods, and is intended to aid in furthering uniformity of plans, project specifications, and competitive bidding practices used by those involved in public works projects.



Overflow Emergency Response Plan

The City of Chula Vista owns and operates a diverse wastewater collection system that consists of pump stations, gravity flow sewer mains, and force mains. These facilities are well maintained and normally should not result in any sewage overflows or spills. However, the possibility exists that unforeseen accidents, equipment failure, or other events not controllable by the City could result in sewer overflows or spills.

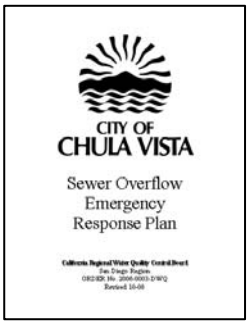
The majority of the WDR regarding an Overflow Emergency Response Plan are fulfilled by the City of Chula Vista's "Sewer Overflow Emergency Response Plan" included in Appendix K. The portions of the WDR document addressing specific requirements are summarized below:

Overflow Emergency Response Plan - *Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:*

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

As described in the Sewer Overflow Emergency Response Plan, notification of any spill received by City staff during normal business hours (7:00a.m. to 3:30p.m. Mon. thru Fri.) is routed to the Public Works Department, Customer Service Center (619-397-6000). The Customer Service Center is responsible for recording relevant spill information, immediately dispatching a Chula Vista vactor truck crew to the scene, and notifying the Public Works Wastewater supervisor. Should a person need to notify the City of Chula Vista of a spill condition after normal business hours, the Public Works phone number directs people to call a non-life threatening Police Department phone number where the dispatcher will collect the pertinent data and notify the on-call ("Standby") Public Works staff. The Standby will investigate the reported spill and notify the supervisor of their findings. The supervisor has the authority to call additional personnel if necessary to contain the spill, clean, and disenfect the area. The supervisor will report the SSO in accordance with the Regional Water Quality Control Board guidelines.

(b) A program to ensure an appropriate response to all overflows;



The City of Chula Vista has implemented a Sewer Overflow Emergency Response Plan outlining procedures that, when enacted in response to a sewer overflow or spill, would reduce or eliminate public health hazards, prevent unnecessary property damage, and minimize service interruption. The plan includes procedures to ensure that City staff can quickly respond appropriately to spills, assess any property damage, and accurately report overflows/spills in a timely manner to regulatory agencies.

The City of Chula Vista's response plan complies with Waste Discharge Requirements issued by the California Regional Water Quality Control Board, beginning with San Diego Region Order No. R9-96-04. The plan is reviewed and revised annually in order to stay in compliance with the most recent waste discharge requirements.

(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;

Should a spill occur, the Public Works Operations Department is required to notify the San Diego County Department of Health regardless of the size of the spill as specified within the Overflow Response Plan. The original Monitoring and Reporting Program from R9-96-04 also requires the notification of the Office of Emergency Servies (OES) in accordance with California Water Code 13271 (Appendix F). Similar requirements exist for notifications to the Department of Fish and Game depending on the size and location of the spill. For complete procedures, including notification requirements, regarding the handling of SSOs in the City of Chula Vista, please see the Sewer Overflow Emergency Response Plan.

As previously mentioned, this Overflow Response Plan is reviewed and revised annually to stay in compliance with the latest regulations regarding SSOs. For example, procedures have been modified to comply with San Diego Regional Water Quality Control Board Order No. R9-2007-0005 (adopted on February 14, 2007) which requires agencies to report any public or private sewer spill in excess of 1,000 gallons to the Department of Fish and Game by phone, fax or email within 24 hours of becoming aware of the SSO. For a privite spill less than 1,000 gallons, the City has 30 days to report to the State Board Online SSO database. This requirement supersedes the private lateral sewer discharge reporting timeframe for private lateral sewer discharges in the State Board Monitoring and Reporting Program No. 2006-0003-DWQ (please see Appendix D).

(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;

When new staff are hired in the Wastewwater Operations Division of Public Works they are given training on, and receive a copy of, the Emergency Response plan. Supervisors review the plan with the employee and the employee is trained by the sewer maintenace crew that responds to sewer spills during their first six-months of service. Review of the Emergancy Response Plan is held annualy for all wastewater and standby staff.

Contractors working on sewer facilities are required to submit their own Emergency Overflow Response Plan specific for their project to the City prior to starting any construction activity. In addition, should a contractor experience an SSO, they are required to immediately cease all construction activity, begin cleanup efforts, and call the City inspector for the project who will oversee cleanup efforts ensuring the Contractor's compliance with their emergency response plan and notification requirements. In addition, the inspector would be able to call Public Works crews for assistance in the cleanup effort if necessary.

(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and

As outlined in the City's Overflow Response Plan, the following procedures are used when responding to emergency situations:

1. When responding to an overflow/spill location staff first needs to secure the area by means of blocking off the affected area from public contact. This can be done by the flowing method:
    a. Use traffic cones, barricades or warning tape to detour vehicle and pedestrian traffic safely around affected area.
2. Use reflectorized clothing when working at night.
3. Use proper traffic control patterns and advanced warning signs as outlined by San Diego Regional Standards when working in the roadway.
4. Use proper personal protective equipment (PPE) when working with raw sewage.
5. Follow all other safety procedures as outlined in the Human Resources Department Policies And Procedures Codes Of Safe Practice

(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

A fast response and containment program ensures City staff have the ability to limit, or entirely prevent, discharges into waters of the United States. As further detailed in the Overflow Response Program, when responding to an overflow/spill location, staff first assesses the

magnitude of the spill to arrange for reasonable, immediate actions to contain the overflow/spill. Staff has several different methods available depending on the given situation:

1. Typically, BMP's such as Geo Logs or rock bags are setup downstream from the overflow/spill to prevent further discharge to the storm drain system. Staff then positions a vacuum truck to begin vacuum operations. Water and debris from the spill is contained in the storage tank of the vacuum truck. Staff makes a determination if more equipment is needed for containment during the event.
2. Containment for large overflow/spills are handled differently depending on location and terrain. Methods to contain large overflows/spills may require the following methods:
    a. Dam/Dike – dams and dikes can be erected to contain overflows/spills. Staff has access to materials such as rock bags, sand, and base materials to construct a dam or dike when needed.
    b. Pump Bypass-The City owns it's own bypass pumping system and can set up operation to bypass or pump contained discharge back to the collection system. The bypass system is capable of pumping up to a one half mile depending on the head pressure.

In satisfying all notification requirements regarding SSOs, the City must contact the San Diego County Department of Environmental Health. Once contacted, the Department of Environmental Health may review the effected area, monitoring for any environmental impacts. Should impacts be found, the City would comply with recommendations made by the County Department of Environmental Health to minimize or correct the impacts.

Fats, Oil, and Grease (FOG) Monitoring Program

The buildup of fats, oil, and grease in a sanitary sewer system can quickly reduce a system's efficiency and result in overflows. The City of Chula Vista's sewer maintenance program aggressively fights the buildup of FOG in the system by routinely monitoring and cleaning those areas where FOG has been known to accumulate. As a result of these, and other preventative maintenance efforts, the City of Chula Vista is routinely below the regional average number of SSOs (per 100 miles of sewer lines) according to data provided by the Regional Water Quality Control Board.

While the City of Chula Vista does not believe we currently experience a significant FOG problem, the City has enacted a FOG Control Program aimed at reducing the amount of FOG discharged into the system. The WDR regarding FOG Control Programs required by the Regional Water Quality Control Board details requirements to be included in an agency's program. Each requirement, and a description of how the requirement is satisfied in Chula Vista, is detailed within this chapter. Several requirements are satisfied by various Chula Vista Municipal Code sections that have been included in the body of this report. In addition, Chapter 13 of the Municipal Code, which focuses on the City's sewer system, has been included in Appendix "H." The Municipal Code in its entirety may be viewed at *www.chulavistaca.gov.*

FOG Control Program: *Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system.*

According to statistics published by the Regional Water Quality Control Board, over the past five fiscal years the City of Chula Vista has experienced an average number of SSOs (per 100mi) well below the San Diego County Average as can be seen in the table below:

SSO Statistics Summary

Fiscal Year	02/03	03/04	04/05	05/06	06/07
Ave. # of SSOs in San Diego County (per 100mi)	5.4	3.3	4.8	3.6	2.9
Ave. # of SSOs in City of Chula Vista (per 100mi)	.8	.3	3.3	.3	1.3

Chula Vista staff believes the relatively low number of SSOs experienced within the City of Chula Vista is a testament to the City's diligent preventative maintenance program for the wastewater collection system. Although these statistics are something to be proud of, the City believes there is room for improvement. A recent survey of food service establishments in the City (further discussed later in this chapter) suggests that, while a majority utilizes pre-treatment

devices, only 50% properly maintain them. The statistics regarding SSO's within the City and the results from the food service survey leads staff to believe that programs already in place adequately address FOG related issues within the City, but more can be done via public outreach and education to reduce the amount of FOG being discharged into the sewer system, specifically regarding the maintenance of pre-treatment devices. Understanding that FOG does not currently create significant issues in the City of Chula Vista's wastewater collection system, but that some improvements can be made, the City plans to implement a FOG Control Program aimed at improving public outreach and pre-treatment requirements.

FOG Control Program: *This plan shall include the following as appropriate:*

(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

In order to create and implement a public outreach campaign promoting the proper disposal of FOG, the City of Chula Vista first needed to understand practices currently being implemented to reduce or eliminate the amount of FOG entering the wastewater system by major FOG generators in the City: Food Service Establishments (FSEs). In 2007, the City mailed a questionnaire (see Appendix M) to all FSEs located within the City asking a variety of questions regarding the use and maintenance of grease pre-treatment devices. Data generated by the questionnaire was entered into a master database for tracking and record keeping, but more importantly, the data provided staff with a much clearer picture of the practices being implemented by FSEs in the City that could be used to create an effective public outreach and education campaign. Based upon the survey data collected, approximately 60% of FSEs in Chula Vista utilize grease pre-treatment devices. Of these establishments, only 50% properly maintain and dispose of FOG. As a result, Chula Vista's FOG outreach and education program must first encourage FSEs to utilize pre-treatment devices, and then educate them regarding proper routine maintenance and FOG disposal procedures.

Initial outreach efforts will take place during 2009 and will focus on educating FSEs of current Municipal Code ordinances requiring the use of pre-treatment devices. Pamphlets outlining existing requirements will be mailed to FSEs with contact numbers for various City departments able to answer questions regarding installation, maintenance, and FOG disposal procedures, for pre-treatment devices as well as instructions on what to do and who to notify in case of an accidental overflow.

A second phase of outreach may begin as early as November 2009. City staff from the Building and Public Works Departments are currently drafting a new FOG ordinance to be included in the City's Municipal Code. This new FOG ordinance will impose stiffer penalties for non-compliance, allow a grace period (starting on the date of approval of said ordinance) for existing FSEs without pre-treatment devices to install devices without penalty, and outline more specific guidelines for the installation and maintenance of pre-treatment devices. The City anticipates this ordinance to be approved and implemented by November 1, 2009. Once approved, the City's second phase of public outreach will educate FSEs on the changes to the Municipal Code,

further encouraging FSEs to comply with pre-treatment device requirements during the grace period to be defined within the ordinance.

Starting in 2010, annual outreach campaigns will continue, educating FSEs on the latest FOG pre-treatment devices, maintenance standards, and FOG disposal locations.

In addition to regularly scheduled outreach campaigns, Public Works Department staff will coordinate with the City's Residential Recycling Division to implement seasonal campaigns targeting residences, educating Chula Vista residents on the proper disposal of cooking oil and grease, etc. These efforts, some of which are already in place, are the result of anecdotal evidence of increased cooking oil use during holiday seasons such as the use of turkey fryers on, or around, Thanksgiving. Current methods used to deliver the City's FOG message to residents are limited to City internet webpage announcements, however, staff is researching the posting of educational posters at grocery stores, libraries, and other public venues, as well as point-of-purchase labels indicating proper disposal of cooking oils and grease at deep fat fryer sales sites (particularly turkey fryers).

(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

City of Chula Vista sewer maintenance crews dispose of FOG generated within the sanitary sewer system, as well as any other solid debris collected during sewer maintenance operations, in accordance with local landfill regulations.

The City of Chula Vista's Hazardous Waste Facility located at 1800 Maxwell Road in the City of Chula Vista will accept used cooking oil from residential households within the City of Chula Vista. Information regarding this program can be found on the City's website at www.chulavistaca.gov. In addition, the website provides the phone number to call if residents are interested in having their solid waste provider collect used cooking oil at their home. Businesses are encouraged to contact their solid waste service provider to coordinate the disposal of FOG.

(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

The City of Chula Vista has included language within the City's Municipal Code regarding prohibited discharges to the sanitary sewer system under Section 13.12.010. While sub-paragraph "A" states that the list of prohibited discharges described within the section applies to all users of the wastewater system, and can be amended, sub-paragraph "B" lists the specific substances that are prohibited from being discharged into the system. Excerpts from section 13.12.010 are included here for example purposes while the entire section and Municipal Code as a whole are available on-line. Additional sections of the Municipal Code addressing the

City's legal authority to regulate the use of the sewer system is further addressed in the Legal Authority chapter of this SSMP.

13.12.010 Prohibited discharges

C. Prohibited discharges shall include, but not be limited to, those containing constituents enumerated in this section. Such prohibitions are applicable to all users of the wastewater system. Any constituent not listed herein may be added by regulation or other prohibition promulgated by the Director based on results of technical determinations, the actions of regulatory agencies, the projected impact of the constituent upon the wastewater system, and the capacity of wastewater treatment facilities to accommodate such constituent.

D. No person, whether or not a permittee, shall discharge or cause to be discharged directly or indirectly into a sewer lateral, or into the wastewater system or facilities, the following:

4. Any solids or viscous substances or other matter of such quality, size or quantity that they may cause obstruction to flow in the sewer or be detrimental to proper wastewater treatment plant operations. These objectionable substances include, but are not limited to, asphalt, dead animals, offal, ashes, sand, mud, straw, industrial process shavings, metal, glass, rags, feathers, tar, wood, whole blood, paunch manure, bones, hair and fleshings, entrails, fatty acids, grease and oil, paper dishes, paper cups, and milk containers or other similar paper products, either whole or ground.
8. Any matter containing more than 500 mg/l of oil or grease.

(d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

The City of Chula Vista's Municipal Code Section 13.10.150 states that all FSEs are required to install and maintain a grease pre-treatment device.

13.10.150 Pre-treatment - Grease – Food establishments

B. All food establishments shall install a grease pre-treatment device in the waste line leading from the food preparation area, or from sinks, drains, appliances and other fixtures or equipment used in food preparation or cleanup, to where grease may be introduced into the sewerage system. Such grease pre-treatment devices shall be installed to remove grease from wastewater and shall be maintained in efficient operating condition by periodic removal of the accumulated grease. No such collected grease shall be introduced into any drainage piping or public sewer.

As previously mentioned in this chapter, the majority of Chula Vista FSEs that responded to the City survey currently utilize pre-treatment devices to reduce or eliminate FOG from entering the sewer system. The use of these devices, combined with preventative maintenance efforts already in place, reduce FOG levels within the system to manageable levels. As a result, the City of Chula Vista has not yet imposed more specific design standards or maintenance requirements regarding the use of grease removal devices. However, in a coordinated effort between Public Works and Building Department staff, the City is currently drafting an entire FOG ordinance imposing stiffer penalties for non-compliance and more specific guidelines for the installation and maintenance (including record keeping and reporting requirements) of pre-treatment devices. The City anticipates this ordinance to be approved and implemented by November 1, 2009.

Although specific design and maintenance standards are not yet included in our Municipal Code, City staff requires any new construction or restaurant remodel project to comply with 2008 California Plumbing Code (CPC) standards. These standards include requirements for fully functional, properly sized grease interceptors to be installed in accordance with manufacturer specifications.

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

As discussed in the Legal Authority chapter of this SSMP, City of Chula Vista Municipal Code Section 13.06.030 (B) gives representatives of the City the right, if necessary, to access a facility to inspect discharges to the City of Chula Vista's sanitary sewer system.

Unfortunately, the City does not currently have the ability to inspect every FSE within the City on a regular basis for grease pre-treatment devices. Currently, the City of Chula Vista Public Works NPDES Inspection team conducts inspections of most high volume restaurants for storm drain discharge violations. As part of their inspection of FSEs in areas that discharge into sewer pipes known to experience FOG buildup, staff will verify the existence of grease recycling barrels and/or interceptors. The Public Works Engineering section will continue working with the NPDES Inspection Team to ensure FSEs in these areas, along with FSEs that have experienced SSOs in the past, are properly disposing of grease as well as implementing other best management practices.

(f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and

As discussed in the Operations and Maintenance Chapter of this SSMP, the City of Chula Vista utilizes a computer based Management System (GBA Master Series) to organize and schedule maintenance activities according to the nature of the activity or severity of the problem. While City crews provide routine maintenance on all sewer facilities at least once every 18 months, portions of the system experiencing low flow volumes or

a high concentration of grease/roots are scheduled for cleaning more frequently.

City staff currently identifies FOG problem areas through two primary methods discussed in the Operations and Maintenance Section of the report: tracking maintenance activity in the GBA on a manhole to manhole basis, and annual video monitoring program inspections. As City crews perform routine maintenance of sewer lines, they note any debris or blockages encountered, entering this information in the GBA. Lines experiencing regular blockages (which are usually only partial blockages) are then inspected in more detail via video monitoring to better understand the nature of the blockages or debris in the line. Areas requiring more routine maintenance are scheduled accordingly.

Approximately 8,403 linear feet of sewer pipes (less than .5% of the entire system) are currently identified in the City's GBA and are scheduled for more routine, focused cleaning activities specifically for FOG and root control. Cleaning of these specifically identified lines takes place on a 30 or 60-day schedule depending upon the severity of the problem, the history of blockages or overflows, and the proximity to FSEs that may discharge an above average amount of FOG into the system. Lines receiving this elevated level of maintenance may be scheduled for cleaning using active enzymes to facilitate the breakdown of grease depending upon the severity of the problem. These enzymes are periodically deposited into certain lines to enhance the effectiveness of the cleaning process.

Length of Sewers in Focused Cleaning Program for FOG Control

Cleaning Frequency (days)	Length (feet)
30	5,651
60	2,752
Total (feet)	**8,403**

It should be noted the City's Public Works Operations Division maintains records within their GBA software to monitor maintenance issues unrelated to FOG buildup. These records include information such as the date and time of all cleaning activity, the type of cleaning completed, type of debris encountered, and the severity of any maintenance issue. As a result, City staff is able to utilize specific cleaning procedures and schedules tailored to address the needs of each pipe segment.

(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

As previously discussed, the amount of FOG discharged into the sewer system is currently at levels that are manageable through routine maintenance activities. However, as shown in the results of the City's pre-treatment device survey, there is room for improvement in the number of FSEs that utilize pre-treatment devices, as well as in the maintenance practices for those facilities already equipped with grease control devices. The City's plan for implementing a public outreach campaign, combined with the drafting of a new FOG ordinance as previously discussed, should help reduce the amount of FOG being discharged into Chula Vista's wastewater system.

As these efforts are implemented, the City will monitor the number and frequency of SSOs due to FOG within the city limits, and re-evaluate our strategies for dealing with FOG discharge if, for any reason, the frequency or severity of spills begins to rise. Should the need arise, the City of Chula Vista may find it necessary to implement a more stringent inspection program with frequent visits to FSEs verifying the existence of grease interceptors and evaluating maintenance practices being utilized. Should it be necessary to expand the FOG program to such a level, the City would already have a large database of FSEs and their pre-treatment devices based on efforts already completed. It is important to note that any expansion of our inspection program would require allocating additional inspection staff and resources that are currently unavailable.

System Evaluation and Capacity Assurance Plan

In order to effectively manage a sanitary sewer collection system and reduce SSO's, it is important for agencies to understand and evaluate potential capacity restrictions, and how they relate or contribute to SSO's. In the City of Chula Vista, two types of capacity are typically being analyzed: treatment capacity and flow capacity.

The City of Chula Vista does not currently operate a wastewater treatment plant. Instead, the City's wastewater flows are sent to a treatment facility in the City of San Diego via two large transmission lines within the regional, "Metro" system. As such, the City has rights to a set amount of treatment capacity at San Diego's treatment plant. Therefore, it is important for Chula Vista staff to have a complete understanding of how much sewage is transported to San Diego on a daily, monthly, and annual basis. Assisting staff in this effort are 14 permanent flow meters located immediately upstream of connections from City of Chula Vista wastewater lines to regional wastewater lines leading towards San Diego's treatment facility. These meters are reviewed on a daily basis and the data is frequently used for long range planning to verify the impacts resulting from proposed development.

Flow capacity within Chula Vista's own wastewater collection system is monitored through the City's flow monitoring program. Equipped with several flow meters, City staff regularly monitors numerous locations across the City to ensure issues relating to flow capacity are identified before SSO's occur.

In an effort to set guidelines for all agencies to follow regarding capacity evaluations of a collection system, the State WDR lists several topics that must be included in an agency's SSMP under the chapter heading System Evaluation and Capacity Assurance Plan. These requirements, and how the City of Chula Vista addresses each, are included below:

System Evaluation and Capacity Assurance Plan*: The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:*

(a) Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

The City of Chula Vista does not currently experience regularly occurring SSO's resulting from hydraulic deficiencies. However, the City has evaluated the capacity of key system components and identified locations exceeding current flow capacity design standards. The most recent evaluation of the entire collection system with respect to flow capacity was completed in 2005

with the adoption of a wastewater master plan. Additional capacity studies have also been completed for individual sewer basins as further discussed below.

During the City's recent development boom beginning in the late 1990's, the City completed sewer basin studies of three major basins within the City: Telegraph Canyon (2002), Poggi Canyon (2003), and Salt Creek (2003). As part of these studies, models of each basin and their respective sewer lines were completed. Flow projections for each basin's build-out scenario were completed with lists of improvements required to accommodate anticipated growth generated for each basin.

In 2005 the City of Chula Vista retained a consultant to update the City's Wastewater Master Plan. As part of this effort, the consultant was tasked with combining the three existing hydraulic models previously mentioned with a fourth, existing model that covered the remaining, older sewer basins. Once combined, the consultant was to calibrate the model and evaluate the system with the following objectives:

1. Develop hydraulic models of the City's wastewater trunk sewer collection system (pipes with 12" diameter or larger)
2. Identify sewer reaches that may be over capacity under existing and projected future peak wastewater loading conditions.
3. Based on the findings of the hydraulic analysis, recommend improvements to the existing collection system to reduce the potential for sanitary sewer overflows and to allow for planned growth within the City's service area.

After completing the model and evaluating both the existing and projected loading scenarios, the consultant identified four locations as being over design capacity and were identified in the final Wastewater Master Plan as needing capacity enhancing improvements. These locations, and the City's plan for each, are as follows:

Center Street:

The capacity of the Center Street sewer line has been increased since being identified within the Wastewater Master Plan. A CIP was completed in 2008 upsizing the facility from a 10-inch diameter pipeline to a 15-inch pipeline.

Colorado Avenue:

After being identified in the Wastewater Master Plan, the Public Works Operations Division thoroughly cleaned the pipe, and Engineering Staff set flow meters to determine if flow conditions within the pipe improved. After being cleaned, the overall depth of flow within the pipe was significantly reduced. Since this time maintenance crews have placed the pipe on their list of segments to be cleaned on a more regular basis. Engineering staff has created a CIP to increase the pipe size from 15-inch to 18-inch, but have kept the project on hold as it appears the increase in routine maintenance has improved flow within the line and it currently does not experience significant capacity limitations.

Moss Street:

Improvements along Moss Street designed to increase the capacity within the Moss Street sewer line have already been completed. A CIP was created in 2006 to upsize the pipe from an 8-inch diameter to a 10-inch diameter, and was completed shortly there after.

Main Street:

Two sewer lines currently exist within Main Street: the Main Street line and the Salt Creek Trunk Sewer. The Main Street line currently exceeds capacity thresholds while the Salt Creek Trunk line has excess capacity. A CIP has been created to construct a diversion structure to divert flow from the Main Street line to the Salt Creek Trunk. However, this project is currently on hold as City staff discusses the possibility of an alternative diversion structure proposed by the City of San Diego that would divert flow from Chula Vista facilities to San Diego facilities. Construction on one of the two diversion structures should begin during calendar year 2009.

The City also uses the findings of the Master Plan's hydraulic analysis to guide its flow-monitoring program. After the Master Plan was completed, the Engineering Division of the Public Works Department evaluated the hydraulic analysis and determined which sewer lines were approaching capacity thresholds, and scheduled these locations to be periodically monitored under the City's flow monitoring program. Should any of the locations rise above the City's capacity threshold standards, an appropriate solution would be identified, and funds would be allocated for design and construction through the City's Capital Improvement Program.

As it exists today, the current hydraulic model of the City's sewer network includes pipes with a diameter equal to, or greater than, 12 inches. The City of Chula Vista has recently started incorporating all remaining pipes into the overall hydraulic model, and anticipates completing the model in 2010.

(b) Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria;

The entire Chula Vista sanitary sewer collection system is subject to the design standards included in the City's Subdivision Manual (section 3-300). These standards were therefore applied in the analysis completed as part of the Wastewater Master Plan update of 2005. Examples of some of the design standards addressed by the City's Subdivision Manual are included below:

Land Use	**Unit Generation Rate**
Residential (R-1 & R-2)	265 gpd per dwelling unit
Residential (R-3 & MHP)	199 gpd per dwelling unit
Commercial Industrial and Institutional	2,500 gpd per acre
Parks	500 gpd per acre
Elementary School	15 gpd per capita
Junior High and High School	20 gpd per capita

Parameter	Criteria
Peak flow depth to pipe diameter ratio d/D	0.50 for d ≤ 12 inches
	.75 for d > 12 inches
	0.013 for VCP or RCP, d ≤21 inches
Manning 'n' factor	0.012 for VCP or RCP, d >21 inches
	0.012 for PVC all sizes
Minimum Velocity	2 feet/second
Maximum Velocity	12 feet/second

(c) Capacity Enhancement Measures: The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

The Wastewater Engineering section is responsible for including sewer related projects into the City's CIP Program on an annual basis. The list of projects proposed each year by the Wastewater Engineering section is generally based on 1) available funding, 2) infrastructure deficiency priority lists generated by staff, and 3) capacity constraints.

Available Funding:
In 2007 the City Wastewater Engineering Section obtained a consultant to update the "Cost of Service and Rate Study for Sewer Services." The consultant analyzed the City's sewer rates, required capacity improvements identified in the City's Wastewater Master Plan, and the City's maintenance obligations, in order to recommend a revised sewer service rate that would collect the necessary funds to pay for the operation and maintenance of the sewer system. The consultant ultimately recommended a rate structure that funded the construction of all capacity enhancing improvements identified in the Wastewater Master Plan prior to the end of fiscal year 08/09, over $1.5 million worth of rehabilitation projects for Fiscal Year 07/08, and included $1.4 million worth of rehabilitation projects each year between Fiscal Years 09/10 and 12/13.

Revenue collected from rate payer's sewer fees to facilitate the operation and maintenance of the sewer system are divided into two funds: the Sewer Facility Replacement fund and the Sewer Service Fund. The Sewer Facility Replacement fund is used to rehabilitate or replace deteriorating sewer facilities such as pipes, manholes, and pump stations. The Sewer Service fund is used to pay for sewer treatment at the plant operated by the City of San Diego as well as any capacity enhancing project within the City of Chula Vista. As CIP projects are created and funding is allocated, the Wastewater Engineering section identifies which of these two funding sources is to be used.

Infrastructure Deficiency Priority List:

As discussed in the Operations and Maintenance Program Chapter of this SSMP, the City of Chula Vista monitors the sewer system for infrastructure deficiencies and failures primarily through a video monitoring program. As deficiencies and failures are identified, they are assigned a deficiency score based on the nationally recognized PACP method developed by NASSCO. Capital improvement projects are then created and scheduled, allocating the necessary funds for the design and construction of those projects with the highest priority, accounting for both short term and long term needs.

Capacity Constraints:

Capacity constraints, such as those identified in the 2005 Wastewater Master Plan, are addressed through the creation of capacity enhancing CIP projects. The City of Chula Vista has created CIP projects addressing all known capacity constraints existing at this time. As development continues within the City of Chula Vista, developers will continue to be required to study the City's sewer system and mitigate any impacts directly attributable to their respective projects. If and when the City's development master plan is updated, the Wastewater Master Plan will also be updated as appropriate to ensure long term sewer demands are properly accounted and planned for, with funding sources appropriately identified. In addition, the City of Chula Vista will continue to monitor the system for capacity related issues through the City's flow monitoring program, creating projects as needed to address any identified issues.

(d) Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.

As flow capacity issues are identified, Chula Vista Engineering staff typically creates a CIP to be completed the following fiscal year. Schedules are generally set through the CIP creation process accounting for staff and funding availability. In addition, capacity constrained segments of the sewer system are routinely monitored through the City's flow monitoring program so that adjustments can be made to construction schedules (either fast-tracking or delaying projects if flow conditions change). The City's CIP Program is updated on an annual basis so project schedules are reviewed and updated as needed on an annual basis. Please see Appendix "T" for the current list of sewer related CIP projects and their anticipated construction schedules.

Monitoring, Measurement and Program Modifications

In an effort to ensure an agency's SSMP is continually updated and effective, the WDR states specific requirements regarding performance measures. Each requirement, along with Chula Vista's plan to comply with each, is included in this chapter.

The Enrollee shall:

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
(c) Assess the success of the preventative maintenance program;
(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

Monitoring the efficiency and effectiveness of a sewer system is largely dependant upon an agency's ability to collect and analyze data. All five of the requirements listed above can only be met if Chula Vista accurately maintains and analyzes the data compiled through all of the programs and policies described in this document. Chula Vista staff has selected several specific performance measures that can be compiled on an annual basis to serve as indicators of whether or not the programs and policies described in this report are effective, and what areas should be our highest priority. These performance measures are shown on the following page.

While Chula Vista staff have monitored several of these parameters in the past, some of the parameters listed are new and will be monitored beginning with the adoption of the SSMP. Therefore, staff is unable to evaluate the effectiveness of all of these measures at this time. As data is collected, City staff will set specific thresholds for each performance measure that should not be exceeded. If and when these thresholds are exceeded, staff will immediately implement an action plan that will bring the applicable performance measure within threshold standards in the next annual capital improvement program budget. Should multiple threshold standards be exceeded at once, priority will be given to issues resulting in SSO's with the largest SSO receiving the highest priority. Each performance measure will be re-examined, and updated as necessary, with each SSMP update. Over time, trends for each performance measure will be included in the City's SSMP document.

SSMP Element	Performance Measures	Goal*
Overflow Emergency Response	• Average response time • Percent of total overflow volume contained	• 30 minutes during business hours; 60 minutes after hours • 80% Containment
Fats, Oils, and Grease Program	• Number of SSO's due to FOG • Length of pipe receiving increased maintenance activity specifically for FOG related issues	• Zero FOG related SSO's • 8,400 linear feet annually
Capacity Management	• Number of SSO's due to capacity limitations or wet weather • Number of sewer locations currently exceeding capacity thresholds	• Zero capacity and weather related SSO's • Zero locations over capacity
Operation and Maintenance	• Total number and volume of SSO's • Number of pump station failures • Number of pipe failures • Length of pipe CCTV'd • Length of pipe that received routine maintenance	• 8 SSO's, 1140 gallons • Zero pump failures • Zero pipe failures • 63 miles / year • 5 miles

* Performance measures relate to portions of the sewer system owned and maintained by the City of Chula Vista. For example, SSO's resulting from problems within privately maintained sewer lines will be monitored and reported in accordance with state and local guidelines, but will not be included in data used to determine whether or not performance measures are being met.

Audits

The WDR requires agencies to audit their SSMP according to the following:

SSMP Program Audits *- As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.*

The City of Chula Vista will complete audits of the SSMP on an annual basis. The City will also determine each year whether or not the SSMP needs to be updated, and will do so as necessary. The results of each audit, along with a summary of any updates to the SSMP, will therefore be published on an annual basis in a report that will be available to the general public. Each audit will include the following:

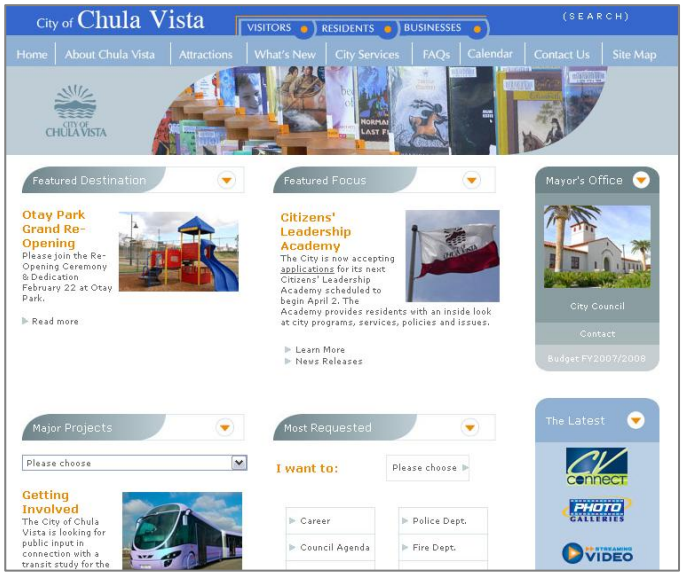
- Review of performance measures as discussed under Chapter IX titled "Monitoring, Measurement, and Program Modifications."
- Details of any action plan required to return any performance measures exceeding threshold standards to an acceptable level.
- Description of system improvements during the past year
- Description of system improvements planned for the upcoming year, with an estimated schedule for implementation
- Summary of any updates to the SSMP itself

Each audit report will be kept on file to fulfill the SWRCB audit requirement.

SSMP Communication

Communication Program *– The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.*

The City maintains a website (http://www.chulavistaca.gov) to inform the public about City activities and provides an effective communication channel for providing alerts and news to the public. The main page of the website includes important announcements, agendas and minutes for City Council meetings, and other helpful information for City residents and businesses regarding the services provided by the City of Chula Vista. Various Public Works documents are published on the website, including the City's most recent Wastewater Master Plan.



City staff will use the website as the primary method of communication with the public. Therefore, a copy of this SSMP will be included on the City website once certified by the City Council during a public City Council meeting, as will audit reports and future amendments or changes to the SSMP. The website will also contain information the public can use to contact the appropriate City staff member regarding matters pertaining the wastewater collection system. Notifications for public outreach campaigns will also be included in the website such as the annual "No Drugs Down the Drain" outreach campaign, etc.

While the City website provides an excellent tool for providing information to the general public, the City of Chula Vista has another method used on an annual basis to deliver important information and statistics regarding the development and performance of the City's sewer system. The Growth Management Oversight Committee (GMOC) is a committee made up of Chula Vista residents who monitor growth within the City on an annual basis and ensure that impacts related to growth are appropriately mitigated. Each year, the Public Works Wastewater Engineering section provides information to the GMOC regarding overall flow volumes, constraints in the collection system, projects being implemented to mitigate impacts on the system, and any other information related to growth and the City's wastewater infrastructure deemed relevant. The GMOC hearings are open to the public and all reports are public documents.

The City of Chula Vista maintains open lines of communication with other public agencies as well. These agencies include the City of San Diego, to whom the City of Chula Vista discharges

all wastewater, and the "Metro Joint Powers Authority" (Metro JPA), a group of municipalities and agencies that all discharge wastewater to the City of San Diego. City staff and elected officials attend monthly meetings with the Metro JPA and associated sub-committees where issues effecting the region's wastewater systems are discussed. Representatives from the City of San Diego also attend these meetings. The Metro JPA also has the authority and an operating budget that allows the Metro JPA to hire auditors and consultants to provide independent, professional opinions and advice to the group regarding issues effecting all of the Metro agencies or the regional system itself.